02. Standards of Chess Equipment and tournament venue for FIDE Tournaments

Prepared by the 2014 and 2015 FIDE Technical Commission
Approved by the 2014 FIDE General Assembly and 2015 Presidential Board.

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Introduction

This document defines the general standards for chess equipment and conditions of play, rate of play and tie-break regulations to be used in FIDE competitions.

1. Chess Equipment

1. The chess equipment offered by the organisers (hosts) of a FIDE or Continental Championship, Olympiad and other FIDE registered tournaments shall conform with the standards mentioned below, and shall be approved by the Chief Organiser and the Chief Arbiter.

1.1 It is recommended, that the chess pieces, boards and clocks, used in the World or Continental top level competitions be approved by participating players. Their approval shall be obtained for other equipment the table, chairs etc.

In case either side disagrees, the equipment to be used shall be decided by the Chief Organiser or the Chief Arbiter of the event, bearing in mind the standards for its size and form as mentioned below.

1.2 It is highly recommended that the chess equipment used in a competition is the same for all participants and all games.

2. Chess Pieces

2.1 Material

Chess pieces should be made of wood, plastic or an imitation of these materials.

2.2 Height, weight, proportions

The size of the pieces should be proportionate to their height and form; other elements such as stability, aesthetic considerations etc., may also be taken into account. The weight of the pieces should be suitable for comfortable moving and stability.

Recommended height of the pieces is as follows: King – 9.5 cm, Queen – 8.5 cm, Bishop – 7 cm, Knight – 6 cm, Rook – 5.5 cm and Pawn – 5 cm. The diameter of the piece's base should measure 40-50% of its height. These dimensions may differ up to 10% from the above recommendation, but the order (e.g. King is higher than Queen etc.) must be kept.

2.3 Form, style of pieces

Recommended for use in FIDE competitions are pieces of Staunton style. The pieces should be shaped so as to be clearly distinguishable from one another. In particular the top of the King should distinctly differ from that of the Queen. The top of the Bishop may bear a notch or be of a special colour clearly distinguishing it from that of the Pawn.

Examples of chess pieces:

Original Staunton chess pieces, left to right:
pawn, rook, knight, bishop, queen, and king

A modern Staunton set, in wood

World Chess set approved by FIDE for the 2013 Candidate Tournament in London

WORLD CHESS /

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14 AUGUST 2012

2.4 Colour of the pieces

The “black” pieces should be brown or black, or of other dark shades of these colours. The “white” pieces may be white or cream, or of other light colours. The natural colour of wood (walnut, maple, etc.) may also be used for this purpose. The pieces should not be shiny and should be pleasing to the eye.

3. Chess boards

3.1. Material and colour

For the World or Continental top level competitions wooden boards should be used. For other FIDE registered tournaments boards made of wood, plastic or card are recommended. In all cases boards should be rigid. The board may also be of stone or marble with appropriate light and dark colours, provided the Chess Organiser and Chief Arbiter finds it acceptable. Natural wood with sufficient contrast, such as birch, maple or European ash against walnut, teak, beech, etc., may also be used for boards, which must have a dull or neutral finish, never shiny. Combination of colours such as brown, green, or very light tan and white, cream, off-white ivory, buff, etc., may be used for the chess squares in addition to natural colours.

3.2. Size of the square and the board

The side of the square should measure 5 to 6 cm. Referring to 2.2 the side of a square should be at least twice the diameter of a pawn's base (it means four paws on one square). A comfortable table of suitable height may be fitted in with a chessboard. If the table and the board are separate from one another, the latter must be fastened and thus prevented from moving during play.

4. Chess tables

For all official FIDE tournaments the length of the table is 110 cm (with 15% tolerance). The width is 85 cm (for each player at least 15 cm). The height of the table is 74 cm. The chairs should be comfortable for the players. Special dispensation should be given for children's events. Any noise when moving the chairs must be avoided.

5. Chess clocks

For the FIDE World or Continental Championships and Olympiads electronic chess clocks must be used. For other FIDE registered tournaments organizers are recommended to use also mechanical chess clocks.

If mechanical chess clocks are used, they should have a device (a “flag”) signalling precisely when the hour hand indicates full hours. The flag must be arranged so that its fall can be clearly seen, helping the arbiters and players to check time. The clock should not be reflective, as that may make it difficult to see. It should run as silently as possible in order not to disturb the players during play.

The same type of clocks should be used throughout the tournament.

5.1. Requirements for electronic chess clocks

(a) Clocks must function in full accordance with the FIDE laws of chess.
(b) The display at all times should show the time available to complete a player’s next move.
(c) The displays must be legible from a distance of at least 3 meters.
(d) From at least a distance of 10 meter a player must have a clearly visible indication which clock is running.
(e) In the case of a time control being passed, a sign on the display must signal clearly which player passed the time control first.
(f) For battery powered clocks, a low-battery indication is required.
(g) In case of a low-battery indication the clock must continue to function flawless for at least 10 hours.
(h) Special attention should be given to the correct announcement of passing time controls.
(i) In case of accumulative or delay timing systems, the clock should not add any additional time if a player passed the last time control.
(j) In case of time penalties it must be possible that time and move counter corrections are executed by an arbiter within 60 seconds.
(k) It must be impossible to erase or change the data in display with a simple manipulation.
(l) Clocks must have a brief user manual for the clock.
(m) Electronic chess clocks used for FIDE events must be endorsed by the FIDE Technical Commission.

5.2. The electronic chess clocks endorsed by the FIDE

(a) DGT XL (2007)
(b) DGT 2010 (2010)
(c) Silver Timer (2007)
(d) “Sistemco” (2009)

(e) DGT 3000 (2014)

6. Electronic score sheets

6.1. General remarks

(a) An electronic score sheet is a replacement for the current used paper versions within tournaments and matches. It makes it easier for reconstructing games for publication in situations where no other means of move registration is used.
(b) An electronic score sheet is a device where a player can notate his and his opponent's moves during a game with an electronic registration of the game played.
(c) Basic rules for this electronic score sheet (device):
    (1) The device is dedicated for notating chess games (not a multipurpose computer).
    (2) The device fully complies with FIDE rules.
    (3) The game notation complies with FIDE Laws of Chess, whereas the use of figurines is allowed.
    (4) The device can be linked to the owner or player through some unique identification of the device.
    (5) The device logs user actions during game mode to prevent or detect foul play.
    (6) It is foreseen that both players and tournament organizations will buy and use their own devices.
    (7) The device should have approximately the size of A5-A6 (paper size).

6.2. Game mode

This is the mode where the player notates his game. The switch from any other mode to game mode can be made by the player himself when the game is finished or by the tournament organization or arbiter.

The following rules apply to the electronic score sheet in game mode:
(a) During the game it is not possible to switch to any other mode.
(b) The game notation is clearly visible for the arbiter, with the restriction that not all moves need to be visible.
(c) The state of the device being in game mode is clearly visible for everyone.
(d) It is not allowed to go out of game mode by accident or deliberately, without notifying this to the player, his opponent or arbiter. This is also clearly visible to all parties.
(e) If the battery has low power this must be signaled. When this is signaled, the battery must hold out at least 8 hours to make it possible to notate a complete game.

(f) A minimum of 7 moves must be visible in a move list.
(g) Graphical input through a chess board with figurines is allowed.
(h) Scrolling through the move list is allowed, as is correcting of incorrect entered moves.
(i) A game finishes when a result is noted and both players signed the score sheet. The arbiter signature is optional.
(j) The players are obliged to submit the text of their game to the Organizer with reference to article 8.3 of the Laws of Chess.
(k) On entering moves:
    (1) It is allowed to enter an illegal move;
    (2) It is allowed to enter the clock time, draw offers and other abbreviation according to Laws of chess. Input of clock times should be possible using a figurine notation;
    (3) It is allowed to enter only moves of white or black during time trouble;
    (4) It is allowed to enter a dash for a move during time trouble;
    (5) The device is not allowed to correct or signaling illegal moves automatically;
    (6) If a stale mate or check mate is missed or an illegal move is made by the player, the device must be able to record following moves.
    (7) An automatic move counter should be available
(l) The device must be able to restart the notation.

6.3. Arbiter mode

The arbiter mode is an optional mode for the device. This mode is created to give the arbiter some extra features supporting his job.
If there is an arbiter mode available the following rules apply:
(a) Only the arbiter (or a representative of the tournament organization) is allowed to enter this mode during a game.
(b) In this mode legality checks may be done on the moves played in the game:
    (1) Threefold repetition of a position (fivefold repetition)
    (2) 50 moves rule (75 moves rule)
    (3) Detection of stale mate or check mate.
(c) The arbiter can take moves back in case an illegal move is detected.

6.4. Owner mode

The owner mode is an optional mode for the device. This is a mode where the producer may add some chess features for creating an attractive product for their customers.

If there is owner mode available the following rules apply:

(a) The identification of the owner shall be possible in owner's mode.

(b) This mode is only allowed when not playing a game. Otherwise it is completely locked out.

(c) No chess program is allowed i.e. this is not a chess computer.

(d) No other then chess related activities are allowed.

(e) For anybody it is easy to see that the device is in owner mode.

7. Tournament halls for the FIDE World or Continental Championships and Olympiads

7.1. Inspection and preparation of the Playing Hall

(a) All areas to which players have access during play should be inspected carefully and repeatedly by the Chief Organiser and the Chief Arbiter.

(b) Space for spectators must be prepared. The distance between the chess boards and the spectators should be not less than one meter, for top level tournaments 1.5 meters.

(c) Lighting of a standard similar to that used for examinations should be about 750 lux. Lighting should not cast shadows or cause pinpoints of light to be reflected from the pieces. Beware of direct sunlight, especially if this varies during play.
For a high-level tournaments The organizer should have the possibility (the device) to adjust the light in the hall – quality of lighting covering a larger area to the same level of flux requires a greater number of lumens.

(d) It is highly recommended that the hall be carpeted. The noise made by moving chairs must be avoided.

(e) The extraneous noise levels close to the tournament hall must be checked too.

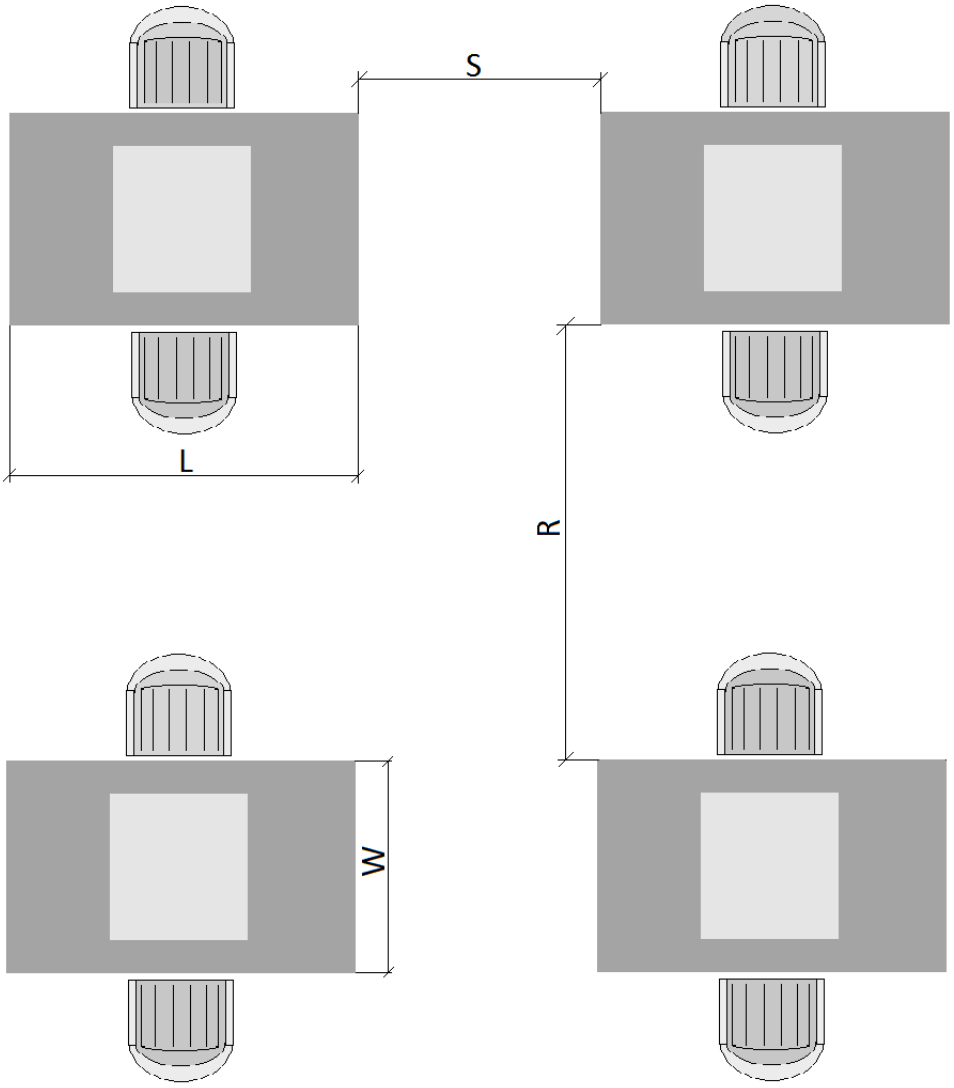
7.2. Space for players and arbiters

(a) It is recommended that the minimal space of 4 square meter be available for each player in individual matches and round robin tournaments. For other tournaments 2 square meters may be adequate. (see Diagram-A)

Diagram A

Some definitions and recommendations regarding sizes

L : Length of the table.
L = 110 cm, tolerances: +20 cm, -10 cm.
W : Width of the table.
W = 85 cm, tolerances: +5 cm, -5 cm.
S : Horizontal space between table rows.
S = 3m, tolerances: +1.5 m, -0.5 m.
R : Vertical space between table rows.
R = 3m, tolerances: +1.5 m, -0.5 m.

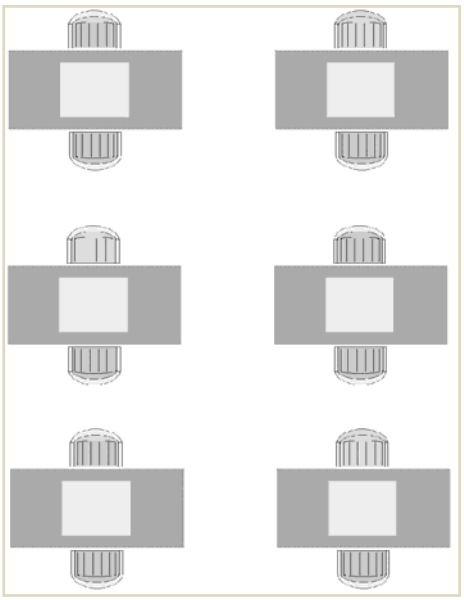


(b) There should be a minimum of 2.5 meters between rows of players. It is best not to have long, unbroken rows. Where possible, players should play on individual tables at least for top boards or top matches in the events. (see Diagram-B)

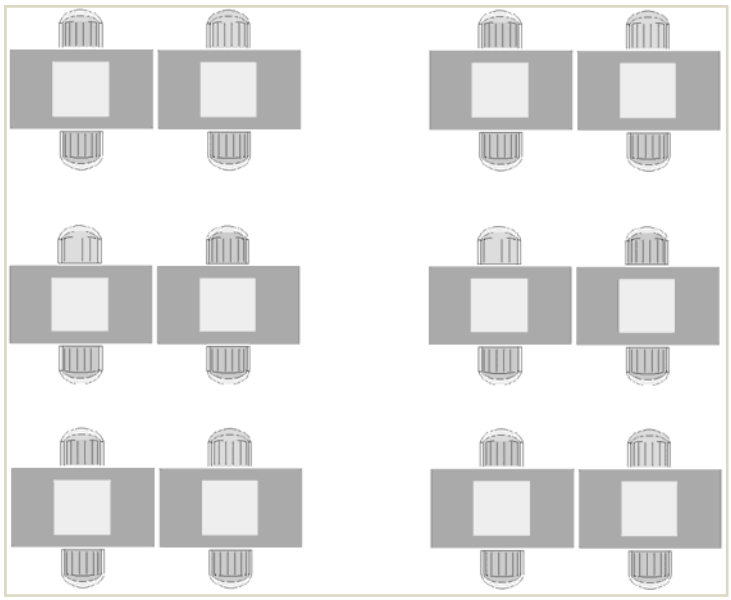
Diagram B

Basic tournament hall placement styles

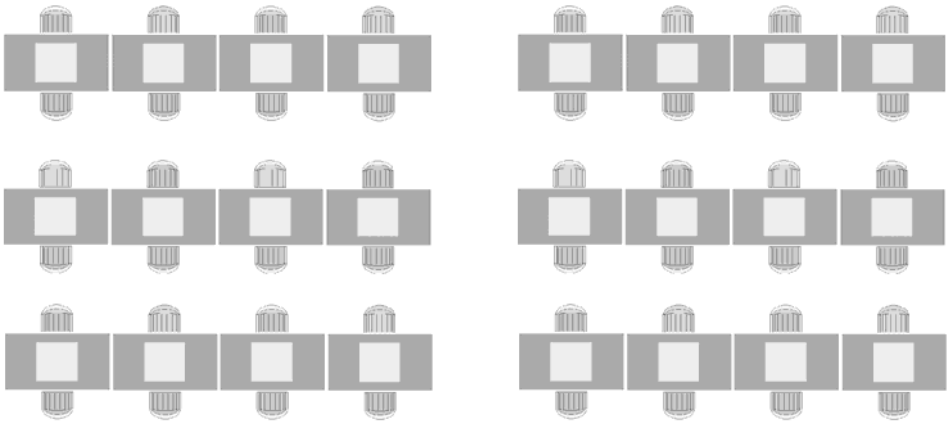
Single Row
Preferable style for individual competitions



Dual Row
For large events(open tournaments, youth champ. etc)
(an arbiter may check two table in a same time)



Multi Row
For team competitions (should be avoided for individual events as much as possible)



(c) Special tables with the connection to the Internet for arbiters should be arranged too.

(d) Games should not be placed too close to doors.
(e) Playing conditions for all players in the event (especially for both players in a game) should be equal as much as possible. Exceptions are mentioned in (b).

8. Broadcasting

All official FIDE event must be broadcast on the Internet

(1) All games from World Championship Matches, World Cup, Olympiad, World Team Championship and GP FIDE.
(2) At least 10 games from each age category of World Youth and Cadet Championships.
(3) As many games as possible from all other championships, but at least 30 games.
(4) Delay of broadcasting should be decided by the Chief Organiser and Chief Arbiter.

9. Testing Clocks and equipment

The FIDE Technical Commission is competent to decide whether or not any piece of equipment is suitable for use in FIDE competitions. The Commission may recommend the use of other types of chess sets in addition to those mentioned above. It may make a list of equipment with satisfactory standards, the specimen of which would be kept at the FIDE Secretariat.

If necessary FIDE will determine the general conditions for other equipment needed in chess competitions, such as score sheets, demonstration boards, etc.

10. Requirements on treatment of disabled chess players

10.1. General remarks

(a) These guidelines will be used for all FIDE rated events.
(b) No one has the right to refuse to meet a disabled player against whom he has been correctly paired.
(c) All chess venues must either be accessible to all, or an acceptable alternative venue with full supervision shall be available to those who cannot access the nominated venue.
(d) A circular shall be sent out when all competitors are known. This circular contains an entry form with the usual points and questions, asking whether any potential competitor has an impairment that will require special circumstances. The competitor has to inform the

organisers about the special circumstances at least 20 days before the start of the event.

(e) No disabled player shall be "penalised" in accordance with the Articles 6.7 and 8.1e of the Laws of Chess because of disability.

(f) It is recommended, that in all events there should be a tournament physician. The Chief Organiser and the Chief Arbiter shall know the phone number of the local hospital and physician.

(g) It is recommended that each national chess federation appoints an officer for matters regarding disabilities.

(h) It is strongly recommended that all organisers of chess events adopt these guidelines.

10.2. Special arrangements for participants

(a) Any impaired competitor who reasonably requests in time the placing of their equipment in a particular seat or orientation, has the right to do so, provided that this does not disadvantage his opponent or other competitors. The event organizer has to ensure that the needs of both players are catered for.

(b) All relevant information shall be displayed before the start of the event, including maps of the venue showing the location of toilets, refreshments and emergency exits.

(c) If a competitor cannot access the refreshments, arrangements should be made for their needs to be met.

(d) If a competitor cannot press his own clock or move his own pieces, an assistant shall be available unless the opponent is willing to do so. If the opponent is acting as an assistant the Chief Arbiter may decide to give him extra thinking time.

(e) If a player has made a prior request, copies of all notices should be available in large print. If a player is unable to read large print, then the notices must be read to him.

(f) It is recommended that all team events have the rule that if a visiting team indicates that it has a player with an impairment coming with them, giving sufficient notice, that the home team does everything which is reasonable to ensure that that player can participate.

10.3. Organisation of the tournament hall

(a) Only one game per table: in case an assistant is needed the tables should be larger (2 m width in order to place the assistants for the disabled) and should be placed separately.

(b) The corridors between rows of tables should be twice as large (wheel chairs)

(c) The arbiters should be clearly accessible to all players.

(d) Foresee additional contact points for electricity: some visually disabled players use a lamp for their chess board. This lamp should not disturb

the opponent.

(e) Put the blind chess players at the same place as much as possible (they will know the way to the rest room and back in very short time!) and give them the same assistant during the whole tournament.

10.4. Assistants

(a) The assistants should have a minimum knowledge of chess; the language is less important since most of the handicapped players only speak their mother tongue.

(b) Assistants for blind players should know the name of the pieces in their language

(c) Assistants for blind players should inform the player when they are leaving the chess board temporarily.

(d) The assistant should always write the moves: this is an important help for the arbiter.

10.5. Tournament organisation and Chief Arbiter

(a) Organise a players meeting for all players before the first round, preferably in the tournament hall.

(b) If possible only one round per day should be played.

(c) After making the pairings the chief arbiter should decide manually on which board everyone should play: some players (visually handicapped) should always play at the same board whereas the largest space should be foreseen for wheelchair players.

(d) Draw proposals or claims can easily go via the assistant. All players push the clock themselves, except the players who are physically unable to do so.

(e) In the case there is a time trouble situation with visually disabled players the arbiter should bear in mind that the (not visually disabled) opponent can reply almost immediately. The tournament regulations should therefore release the visually disabled player from the obligation to record the moves during the last five minutes, even when the game is played with an increment of at least 30 seconds. The visually handicapped player should then update his scoresheet after the time trouble.

11. Rate of play - time controls

The following time controls are approved for FIDE World Events:

No	EVENT	TIME CONTROL
1.	World Championship Match	**100'/40+50'/20+15'/end with incr. 30"/move, starting from move 1**
2.	Candidates Tournament	**100'/40+50'/20+15'/end with incr. 30"/move, starting from move 1**
3.	World Cup	**90'/40+30'/end with incr. 30"/move, starting from move 1**
4.	Grand Prix	**100'/40+50'/20+15'/end with incr. 30"/move, starting from move 1**
5.	Women's World Championship Match	**90'/40+30'/end with incr. 30"/move, starting from move 1**
6.	Chess Olympiad	**90'/40+30'/end with incr. 30"/move, starting from move 1**
7.	World Team Championship	**90'/40+30'/end with incr. 30"/move, starting from move 1**
8.	Women's World Team Championship	**90'/40+30'/end with incr. 30"/move, starting from move 1**
9.	Women's Grand Prix	**90'/40+30'/end with incr. 30"/move, starting from move 1**
10.	World Senior Championship	**90'/40+30'/end with incr. 30"/move, starting from move 1**
11.	World Senior Team	**90'/40+30'/end with incr. 30"/move,**

	Championship	**starting from move 1**
12.	World Juniors and Girls U-20 Championship	**90'/40+30'/end with incr. 30"/move, starting from move 1**
13.	Continental Individual Championships	**90'/40+30'/end with incr. 30"/move, starting from move 1**
14.	Continental Team Championships	**90'/40+30'/end with incr. 30"/move, starting from move 1**
15.	World Youth 14-16-18 Championships	**90'/40+30'/end with incr. 30"/move, starting from move 1**
16.	World Cadets 08-10-12 Championships	**90'/40+30'/end with incr. 30"/move, starting from move 1**
17.	World Schools Individual Championships	**90'/40+30'/end with incr. 30"/move, starting from move 1**
18.	World Schools Team Championships	**90'/40+30'/end with incr. 30"/move, starting from move 1**
19.	World Amateur Championship	**90'/40+30'/end with incr. 30"/move, starting from move 1**
20.	World Olympiad U-16	**90'/40+30'/end with incr. 30"/move, starting from move 1**
21.	World Rapid Championships	**15' with incr. 10" per move, starting from move 1**
22.	World Blitz Championships	**3' with incr. 2" per move, starting from move 1**

12. Tie-break regulations

12.1. Choice of Tie-Break System

The choice of the tie-break system to be used in a tournament shall be decided in advance and shall be announced prior to the start of the tournament. If all tie-breaks fail, the tie shall be broken by drawing of lots. A play-off is the best system, but it is not always appropriate. For example, there may not be adequate time.

12.1.1. Play-Off

a. Adequate time must be set aside for a conclusion to be reached.
b. The pairing system and rate of play must be determined in advance of the start of the event.
c. All eventualities must be covered in the regulations.
d. It is recommended that play-offs only be arranged for disposition of the first place, a championship or qualifying places.
e. Where subsidiary places are also being decided during the play-off, each position shall be determined in accordance with the play-off. For example, three players tie: number 1 wins the play-off, number 2 comes second and number 3 third. Number 2 shall receive the second prize.
f. Where two players are tied after the first place has been decided, they shall split any prize money to which they are entitled. For example: four players tie, and a knockout is arranged. Players 3 and 4 knocked out in the semi-final shall share the 3rd and 4th prizes equally.
g. Where time is limited before a closing ceremony, games between players potentially involved in such ties in the last round may be scheduled to commence earlier than other games in the tournament.
h. If there is a play-off it shall commence after a break of at least 30 minutes after the conclusion of the last main game involving players in the play-off. Where there are further stages, there shall be a break of at least 10 minutes between each stage.
i. Each game shall be supervised by an arbiter. If there is a dispute, the matter shall be referred to the Chief Arbiter. His decision shall be final.
j. Initial colours shall be determined by lot in all cases below.
k. The following is an example where time for play-off is somewhat limited.
    1.
        a. If two players have to play a tie-break match, they play a two-game mini-match at the rate of all the moves in 3 minutes with 2 seconds added on for each move from move 1. If this match is tied:

b. A new drawing of lots for colours shall take place. The winner shall be the first winner of a game. After each odd-numbered game the colours shall be reversed.

2. If three players have to take part in a play-off:
   a. They play a one-game round robin at the rate as in 1 (a). If all three players again tie:
   b. The next tie-break shall be used (see **G**.), and the lowest-placed player eliminated. The procedure is then as in (1) (a).
3. If four players have to take part in a play-off they play a knockout. The pairings shall be determined by lot.
   There shall be two-game elimination matches at the rate as in (1) (a).
4. If five or more players have to take part in a play-off, they are ranked by the next tie-break (see **G**.) and all but the top four are eliminated.
5. The right is reserved to make necessary changes.
6. Where only two players are involved in the play-off, they may play at a slower rate of play, if time permits, by agreement with the CA and CO.

12.1.2. Other Commonly Used Tie-Break Systems

In all systems the players shall be ranked in descending order of the respective system. The following list is simply in alphabetical order.

A. Explanations of Tie-Break Systems

(a) **Average Rating of Opponents**

The Average Rating of Opponents (ARO) is the sum of the ratings of the opponents of a player, divided by the number of games played.

(a1) The Average Rating of Opponents Cut (AROC) is the Average Rating of Opponents, excluding one or more of the ratings of the opponents, starting from the lowest-rated opponent.

(b) **Buchholz System**

The Buchholz System is the sum of the scores of each of the opponents of a player.

(b1) The Median Buchholz is the Buchholz reduced by the highest and the lowest scores of the opponents.

(b2) The Median Buchholz 2 is the Buchholz score reduced by the two highest and the two lowest scores of the opponents.

(b3) The Buchholz Cut 1 is the Buchholz score reduced by the lowest score of the opponents.

(b4) The Buchholz Cut 2 is the Buchholz score reduced by the two lowest scores of the opponents.

(c) **Direct Encounter**

If all the tied players have met each other, the sum of points from these encounters is used. The player with the highest score is ranked number 1 and so on. If some but not all have played each other, the player with a score that could not be equalled by any other player (if all such games had been played) is ranked number 1 and so on.

(d) **Koya System for Round-Robin Tournaments**

This is the number of points achieved against all opponents who have achieved 50 % or more.

(d1) The Koya System Extended

The Koya system may be extended, step by step, to include score groups with less than 50 %, or reduced, step by step, to exclude players who scored 50 % and then higher scores.

(e) **Number of Games played with the Black Pieces**

The greater number of games played with the black pieces (unplayed games shall be counted as played with the white pieces).

(f) **Sonneborn-Berger System**

(f1) Sonneborn-Berger for Individual Tournaments is the sum of the scores of the opponents a player has defeated and half the scores of the players with whom he has drawn.

(f2) Sonneborn-Berger for Team Tournaments is the sum of the products of the scores made by each opposing team and the score made against that team.

(g) **Team Competitions**

(g1) Match points in team competitions that are decided by game points. For example:

2 points for a won match where a team has scored more points than the opposing team.
1 point for a drawn match.
0 points for a lost match.

(g2) Game points in team competitions that are decided by match points. The tie is broken by determining the total number of game points scored.

B. Tie-Break Systems using both the Player's and the Opponents' Results

(a) Sonneborn-Berger
(b) The Koya System for Round-Robin Tournaments
(b1) The Koya System Extended
(c) Number of games won
(d) Direct encounter

C. Tie-Break Systems using a Team's Own Results

(a) Match points in team competitions
(b) Game points in team competitions that are decided by match points
The tie is broken by determining the total number of game points scored.
(c) Direct encounter

D. Tie-Break Systems using the Opponent's Results

Note that these scores are determined in each case *after* the application of the rule concerning unplayed games.
(a) Buchholz System
(a1) Median Buchholz
(a2) Median Buchholz 2
(a3) Buchholz Cut 1
(a4) Buchholz Cut 2
(a5) Sum of Buchholz: the sum of the Buchholz scores of the opponents
(b) Sonneborn-Berger System
(b1) Sonneborn-Berger for Individual Tournaments
(b2) Sonneborn-Berger for Team Tournaments A: the sum of the products of the match points made by each opposing team and the match points made against that team, or
(b3) Sonneborn-Berger for Team Tournaments B: the sum of the products of the match points made by each opposing team and the game points made against that team, or
(b4) Sonneborn-Berger for Team Tournaments C: the sum of the products of the game points made by each opposing team and the match points made against that team, or
(b5) Sonneborn-Berger for Team Tournaments D: the sum of the products of the game points made by each opposing team and the game points made against that team
(b6) Sonneborn-Berger for Team Tournaments Cut 1 A: the sum of the products of the match points made by each opposing team and the match points made against that team, excluding the opposing team who scored the lowest number of match points, or
(b7) Sonneborn-Berger for Team Tournaments Cut 1 B: the sum of the products of the match points made by each opposing team and the game points made against that team, excluding the opposing team who scored the lowest number of match points, or
(b8) Sonneborn-Berger for Team Tournaments Cut 1 C: the sum of the products of the game points made by each opposing team and the match points made against that team, excluding the opposing team who scored the lowest number of game points, or
(b9) Sonneborn-Berger for Team Tournaments Cut 1 D: the sum of the products of the game points made by each opposing team and the game points made against that team, excluding the opposing team who scored the lowest number of game points.

E. Tie-Break Systems using Ratings in Individual Tournaments (where all the players are rated)

When a player has elected not to play more than two games in a tournament, his ARO or AROC shall be considered to be lower than that of any player who has completed more of the schedule.

(a) ARO {See 2.A.(a)}

(b) AROC {See 2.A.(a1)}

F. Handling Unplayed Games for Calculation of Buchholz (Congress 2009)

(a) For tie-break purposes, the result of an unplayed game shall be counted as a draw against the player himself.

(**This system shall not apply from July 1, 2012.)**

From July 1, 2012 the following system only applies:

(b) For tie-break purposes all unplayed games in which players are indirectly involved (results by forfeit of opponents) are considered to have been drawn.

For tie-break purposes a player who has no opponent will be considered as having played against a virtual opponent who has the same number of points at the beginning of the round and who draws in all the following rounds. For the round itself the result by forfeit will be considered as a normal result.

This gives the formula:

Svon = SPR + (1 – SfPR) + 0.5 * (n – R)

where for player P who did not play in round R:

n = number of completed rounds

Svon = score of virtual opponent after round n

SPR = score of P before round R

SfPR = forfeit score of P in round R

Example 1: in Round 3 of a nine-round tournament Player P did not show up.

Player P's score after 2 rounds is 1.5. The score of his virtual opponent is

Svon = 1.5 + (1 – 0) + 0.5 * (3 – 3) = 2.5 after round 3

Svon = 1.5 + (1 – 0) + 0.5 * (9 – 3) = 5.5 at the end of the tournament

Example 2: in Round 6 of a nine-round tournament player P's opponent does not show up.

Player P's score after 5 rounds is 3.5. The score of his virtual opponent is:

Svon = 3.5 + (1 – 1) + 0.5 * (6 – 6) = 3.5 after round 6

Svon = 3.5 + (1 – 1) + 0.5 * (9 – 6) = 5.0 at the end of the tournament

G. Recommended Tie-Break Systems

For different types of tournaments the Tie-Break Rules are as listed below **and are recommended to be applied in the listed order.**

(a) Individual Round-Robin Tournaments:

Direct encounter

The greater number of wins

Sonneborn-Berger
Koya System

(b) Team Round-Robin Tournaments:
Match points (if ranking is decided by game points), or
Game points (if ranking is decided by match points)
Direct encounter
Sonneborn-Berger

(c) Individual Swiss Tournaments where not all the ratings are consistent:
Direct encounter
The greater number of wins
The greater number of games with Black (unplayed games shall be counted as played with White)
Buchholz Cut 1
Buchholz
Sonneborn-Berger

(d) Individual Swiss Tournaments where all the ratings are consistent:
Direct encounter
The greater number of wins
The greater number of games with Black (unplayed games shall be counted as played with White)
AROC
Buchholz Cut 1
Buchholz
Sonneborn-Berger

(e) Team Swiss Tournaments:
Match points (if ranking is decided by game points), or
Game points (if ranking is decided by match points)
Direct encounter
Buchholz Cut 1
Buchholz
Sonneborn-Berger

12.2. Details of Berger table

Berger Tables for Round-Robin Tournaments

Where there is an odd number of players, the highest number counts as a bye.

3 or 4 players:
Rd 1: 1-4, 2-3. **Rd 2:** 4-3, 1-2. **Rd 3:** 2-4, 3-1.

5 or 6 players:
Rd 1: 1-6, 2-5, 3-4. **Rd 2:** 6-4, 5-3, 1-2. **Rd 3:** 2-6, 3-1, 4-5.
Rd 4: 6-5, 1-4, 2-3. **Rd 5:** 3-6, 4-2, 5-1.

7 or 8 players:
Rd 1: 1-8, 2-7, 3-6, 4-5. **Rd 2:** 8-5, 6-4, 7-3, 1-2. **Rd 3:** 2-8, 3-1, 4-7, 5-6.
Rd 4: 8-6, 7-5, 1-4, 2-3.
Rd 5: 3-8, 4-2, 5-1, 6-7. **Rd 6:** 8-7, 1-6, 2-5, 3-4. **Rd 7:** 4-8, 5-3, 6-2, 7-1.

9 or 10 players:
Rd 1: 1-10, 2-9, 3-8, 4-7, 5-6.
Rd 2: 10-6, 7-5, 8-4, 9-3, 1-2.
Rd 3: 2-10, 3-1, 4-9, 5-8, 6-7.
Rd 4: 10-7, 8-6, 9-5, 1-4, 2-3.
Rd 5: 3-10, 4-2, 5-1, 6-9, 7-8.
Rd 6: 10-8, 9-7, 1-6, 2-5, 3-4.
Rd 7: 4-10, 5-3, 6-2, 7-1, 8-9.
Rd 8: 10-9, 1-8, 2-7, 3-6, 4-5.
Rd 9: 5-10, 6-4, 7-3, 8-2, 9-1.

11 or 12 players:
Rd 1: 1-12, 2-11, 3-10, 4-9, 5-8, 6-7.
Rd 2: 12-7, 8-6, 9-5, 10-4, 11-3, 1-2.
Rd 3: 2-12, 3-1, 4-11, 5-10, 6-9, 7-8.
Rd 4: 12-8, 9-7, 10-6, 11-5, 1-4, 2-3.
Rd 5: 3-12, 4-2, 5-1, 6-11, 7-10, 8-9.
Rd 6: 12-9, 10-8, 11-7, 1-6, 2-5, 3-4.
Rd 7: 4-12, 5-3, 6-2, 7-1, 8-11, 9-10.
Rd 8: 12-10, 11-9, 1-8, 2-7, 3-6, 4-5.
Rd 9: 5-12, 6-4, 7-3, 8-2, 9-1, 10-11.
Rd 10: 12-11, 1-10, 2-9, 3-8, 4-7, 5-6.
Rd 11: 6-12, 7-5, 8-4, 9-3, 10-2, 11-1**.**

13 or 14 players:
Rd 1: 1-14, 2-13, 3-12, 4-11, 5-10, 6-9, 7-8.
Rd 2: 14-8, 9-7, 10-6, 11-5, 12-4, 13-3, 1-2.
Rd 3: 2-14, 3-1, 4-13, 5-12, 6-11, 7-10, 8-9.
Rd 4: 14-9, 10-8, 11-7, 12-6, 13-5, 1-4, 2-3.
Rd 5: 3-14, 4-2, 5-1, 6-13, 7-12, 8-11, 9-10.

Rd 6: 14-10, 11-9, 12-8, 13-7, 1-6, 2-5, 3-4.
Rd 7: 4-14, 5-3, 6-2, 7-1, 8-13, 9-12, 10-11.
Rd 8: 14-11, 12-10, 13-9, 1-8, 2-7, 3-6, 4-5.
Rd 9: 5-14, 6-4, 7-3, 8-2, 9-1, 10-13, 11-12.
Rd 10: 14-12, 13-11, 1-10, 2-9. 3-8, 4-7, 5-6.
Rd 11: 6-14, 7-5, 8-4, 9-3, 10-2, 11-1, 12-13.
Rd 12: 14-13, 1-12, 2-11, 3-10, 4-9, 5-8, 6-7.
Rd 13: 7-14, 8-6, 9-5, 10-4, 11-3, 12-2, 13-1.

15 or 16 players:
Rd 1: 1-16, 2-15, 3-14, 4-13, 5-12, 6-11, 7-10, 8-9.
Rd 2: 16-9, 10-8, 11-7, 12-6, 13-5, 14-4, 15-3, 1-2.
Rd 3: 2-16, 3-1, 4-15, 5-14, 6-13, 7-12, 8-11, 9-10.
Rd 4: 16-10, 11-9, 12-8, 13-7, 14-6, 15-5, 1-4, 2-3.
Rd 5: 3-16, 4-2, 5-1, 6-15, 7-14, 8-13, 9-12, 10-11.
Rd 6: 16-11, 12-10, 13-8, 14-8, 15-7, 1-6, 2-5, 3-4.
Rd 7: 4-16, 5-3, 6-2, 7-1, 8-15, 9-14, 10-13, 11-12.
Rd 8: 16-12, 13-11, 14-10, 15-9, 1-8, 2-7, 3-6, 4-5.
Rd 9: 5-16, 6-4, 7-3, 8-2, 9-1, 10-15, 11-14, 12-13.
Rd 10: 16-13, 15-11, 14-12, 1-10, 2-9, 3-8, 4-7, 5-6.
Rd 11: 6-16, 7-5, 8-4, 9-3, 10-2, 11-1, 12-15, 13-14.
Rd 12: 16-14, 15-13, 1-12, 2-11, 3-10, 4-9, 5-8, 6-7.
Rd 13: 7-16, 8-6, 9-5, 10-4, 11-3, 12-2, 13-1, 14-15.
Rd 14: 16-15, 1-14, 2-13, 3-12, 4-11, 5-10, 6-9, 7-8.
Rd 15: 8-16, 9-7, 10-6, 11-5, 12-4, 13-3, 14-2, 15-1.

For a double-round tournament it is recommended to reverse the order of the last two rounds of the first cycle. This is to avoid three consecutive games with the same colour.

12.3. Details of Varma tables

Varma Tables
Directions for “restricted” drawing of tournament numbers:

1. The arbiter should prepare, beforehand, unmarked envelopes each containing one of the sets of numbers A, B, C and D as indicated below in point 5. These envelopes are then respectively placed in larger envelopes, on each of which the quantity of player-numbers contained in the small envelopes is indicated.
2. The order in which players draw lots is determined beforehand as follows: The players from the federation with the greatest number of representatives shall draw first. Where two or more federations have the same number of representatives, precedence is determined by the alphabetical order of the FIDE country code. Among players of the same federation, precedence is determined by the alphabetical order of their names.
3. For example, the first player of the federation with the largest number of players shall choose one of the large envelopes containing at least enough

numbers for his contingent, and then draw one of the numbers from this envelope. The other players from the same contingent shall also draw their numbers from the same envelope. The numbers that remain are available for use by other players.

4. The players of the next contingent then choose an envelope, and this procedure is repeated until all players have drawn their numbers.
5. The following Varma Table can be used for 9 to 24 players.

- **9/10 players:** A: (3, 4, 8); B: (5, 7, 9); C: (1, 6); D: (2, 10)

- **11/12 players:** A: (4, 5, 9, 10); B: (1, 2, 7); C: (6, 8, 12); D: (3, 11)

- **13/14 player**s: A: (4, 5, 6, 11, 12); B: (1, 2, 8, 9); C: (7, 10, 13); D: (3, 14)

- **15/16 players:** A: (5, 6, 7, 12, 13, 14); B: (1, 2, 3, 9, 10); C: (8, 11, 15); D: (4, 16)

- **17/18 players:** A: (5, 6, 7, 8, 14, 15, 16); B: (1, 2, 3, 10, 11, 12); C: (9, 13, 17); D: (4, 18)

- **19/20 players:** A: (6, 7, 8, 9, 15, 16, 17, 18); B: (1, 2, 3, 11, 12, 13, 14); C: (5, 10, 19); D: (4, 20)

- **21/22 players:** A: (6, 7, 8, 9, 10, 17, 18, 19, 20); B: (1, 2, 3, 4, 12, 13, 14, 15); C: (11, 16, 21); D: (5, 22)

- **23/24 players:** A: (6, 7, 8, 9, 10, 11, 19, 20, 21, 22); B: (1, 2, 3, 4, 13, 14, 15, 16, 17); C: (12, 18, 23); D: (5, 24)